JVC



Instructions

Thank you for buying this JVC colour television. To make sure you understand how to use your new TV, please read this manual thoroughly before you begin.

WARNING:

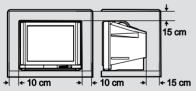
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION:

TO ENSURE PERSONAL SAFETY, OBSERVE THE FOLLOWING RULES REGARDING THE USE OF THIS LINIT

- Operate only from the power source specified on the unit
- 2. Avoid damaging the AC plug and power cord.
- 3. Avoid improper installation and never position the unit where good ventilation is unattainable.

 When installing this television, distance recommendations must be maintained between the floor and wall, as well as instalment in a tightly enclosed area or piece of furniture. Adhere to the minimum distance guidelines shown for safe operation.



- 4. Do not allow objects or liquid into the cabinet openings.
- In the event of a fault, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover.
- 6. For AV-29R9B and AV-29R9 only: The surface of the TV screen is coated with a thin film which can easily be damaged. Be very careful with it when handling the TV. Should the TV screen become soiled, wipe it with a soft dry cloth. Never rub it forcefully. Never use any cleaner or detergent on it.

When you don't use this TV set for a long period of time, be sure to disconnect the power plug from the AC socket.



Connecting the Aerial and VCR

If not connecting a VCR to the TV:

Connect the aerial cable to the TV's aerial socket (see (a) in the illustration).

- 1 Connect the aerial cable to the VCR's ANT. IN (aerial input) socket.
- 2 Connect the VCR's RF OUT (aerial output) socket and the TV's aerial socket with an RF cable (75-ohm coaxial cable).
- 3 Connect the VCR's VIDEO OUT (video output) jack and the TV's VIDEO jack with a video cable.

To connect a VCR to the TV with an S-VIDEO cable:

Connect the VCR's S-VIDEO OUT (S-VIDEO output) connector and the TV's S connector with an S-VIDEO cable, instead of connecting with a video cable (see ® in the illustration).

Note that the connection with a video cable will be ignored in case you connect a VCR to the TV with both video cable and S-VIDEO cable.

4 Connect the VCR's AUDIO OUT (audio L/R output) jacks and the TV's AUDIO jacks (L/MONO and R) with an audio cable.

If the VCR's audio output is in mono:

Connect the VCR's AUDIO OUT (audio output) jack and the TV's AUDIO L/MONO jack with an audio cable.

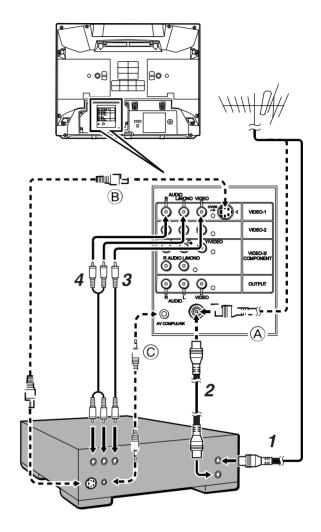
If the VCR is equipped with an AV COMPU LINK terminal: If you connect the TV's AV COMPU LINK terminal and the VCR's AV COMPU LINK terminal with an AV COMPU LINK cable, you can use the AV COMPU LINK remote control system (see © in the illustration). For details, see "AV COMPU LINK" on page 8.

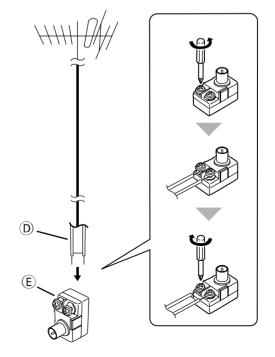
Note:

- For further details, refer to the manuals provided with the devices to be connected.
- The connecting cables are not provided.
- A video can be viewed from the VCR without performing steps 3 and 4. For details, refer to your VCR instruction manual.
- To connect additional external devices, please see "CONNECTING THE EXTERNAL DEVICES" on page 28.

If your aerial cable is a 300-ohm ribbon cable:

Attach the 300-ohm ribbon cable ① to the matching aerial adapter (£) (provided), as shown in the illustration.





■ Connecting the power cord

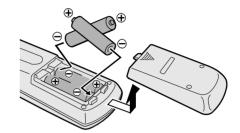
Insert the Power plug into an AC outlet.

■ Putting Batteries into the Remote Control

Use two AA/R6 dry cell batteries. Insert the batteries from the \ominus end, making sure the \oplus and polarities are correct.

To open the battery compartment, slide the door downwards and lift off. Replace the door by sliding it upwards until it is secure.

- Follow the warnings printed on the batteries.
- Battery life is about six months to one year, depending on your frequency of use.
- If the remote control does not work properly, replace the batteries.
- The batteries we supply are only for setting up and testing your TV, please replace them as soon as necessary.
- · Always use good quality batteries.



■ Initial Settings

When the TV is first turned on, it enters the initial setting mode, and the JVC logo is displayed. Follow the instructions on the on-screen display to make the initial settings.

1 Press the Main power button on the TV.

The Power lamp lights red (for power on), then green (for TV on) and the JVC logo is displayed.

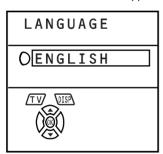


Note:

- If the power lamp stays red and does not change to green:
 - Your TV is in the standby mode. Press the POWER button on the remote control to turn your TV on.
- The JVC logo does not appear when your TV has been turned on once.
 In this case, use the "LANGUAGE" and "AUTO PRO-
 - In this case, use the "LANGUAGE" and "AUTO PRO-GRAM" functions to make the initial settings. For details, see "INSTALL" on page 23.

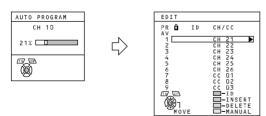
2 Press the OK button.

The LANGUAGE menu appears.



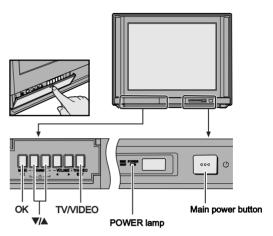
3 Press the **V**/**△** buttons to choose ENG-LISH. Then press the OK button. The AUTO PROGRAM function starts.

The AUTO PROGRAM menu appears and received TV channels are automatically registered in the Programme numbers (PR).

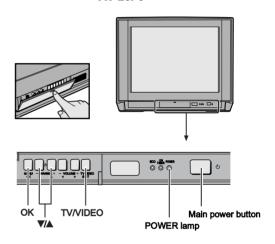


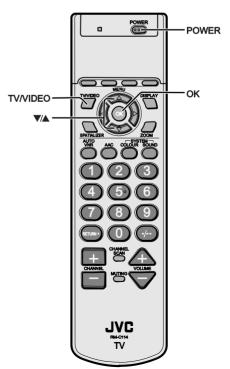
To cancel the AUTO PROGRAM function: Press the TV/VIDEO button.

<AV-29R9B / AV-29R9>



<AV-25P9>





4 After the TV channels have been registered in the Programme numbers (PR), the EDIT menu appears.

You can proceed to edit the Programme numbers (PR) using the EDIT/MANUAL function. For details, see "EDIT/MANUAL" on page 24.

When not using the EDIT/MANUAL function:

If you do not need to use the EDIT/MANUAL function, go to the next step.

5 Now, the initial settings are complete, and you can watch the TV.

- If a TV channel you want to view is not set to a Programme number (PR), manually set it using the MANUAL function. For details, see "EDIT/MANUAL" on page 24.
- The TV channel is not registered in Programme number PR 0 (AV). When you want to register a TV channel to PR 0 (AV), manually set it using the MAN-UAL function. For details, see "EDIT/MANUAL" on page 24.

BASIC OPERATION

■ Turn the Main power on

Press the Main power button on the TV.

The POWER lamp lights red and your TV is in the standby mode.

Note:

• If the POWER lamp lights green, the TV is already on.

To turn the Main power off: Press the Main power button again. The POWER lamp goes off.

Note:

- To save energy, turn the main power off if you are not using the TV for a long period of time.
- The POWER lamp may still light for approximately 10 seconds after you turn the TV's main power off with the Main power button.

■ Turn the TV on from standby mode

Press the POWER button, the TV/VIDEO button, the CHANNEL +/- buttons or the Number buttons.

The POWER lamp lights red to green and your TV will be turned on

To turn the TV off:

Press the POWER button again.

The POWER lamp changes from green to red and the TV enters standby mode.

Note:

 You can turn the TV on with the buttons on the TV. For details, see "Operating with the buttons on the TV" on page 31.

■ Choose a TV channel

Choose a Programme number (PR) in which the desired TV channel has been set.

Use the CHANNEL +/- buttons:

Press the CHANNEL +/- buttons to choose the desired Programme number (PR).

Note:

 You cannot use the CHANNEL +/- buttons to choose a Programme number (PR) with the CHAN-NEL GUARD function set.

Use the Number buttons:

Enter the desired Programme number (PR) with the Number buttons.

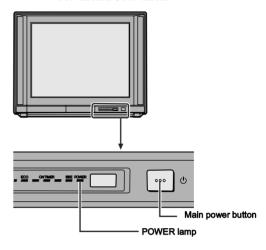
Press the -/- button to select the desired mode then press the Number buttons.

-: 1-digit mode (example)

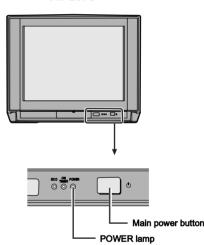
• PR 6 → Press **6**

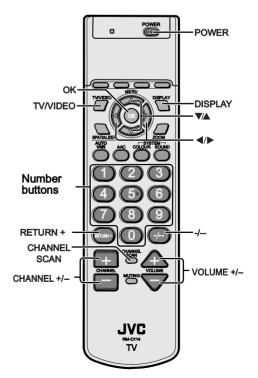
• $PRAV \rightarrow Press \bigcirc$.

<AV-29R9B / AV-29R9>



<AV-25P9>



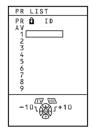


--: 2-digit mode (example)

- $PR 6 \rightarrow Press \bigcirc . \bigcirc .$
- PR 16 → Press **1**, **6**.
- $PRAV \rightarrow Press \ \mathbf{0} \ . \ \mathbf{0}$

Use the PR LIST:

1 Press the DISPLAY button to display the PR LIST.



2 Press the **◄/▶** and **▼/▲** buttons to choose a Programme number (PR). Then press the OK button.

Note:

- For Programme numbers (PR) with the CHANNEL GUARD function set, the û (CHANNEL GUARD) mark is displayed next to the Programme number (PR) in the PR LIST.
- While the PR LIST is displayed, you can also select a Programme number (PR) with the CHANNEL +/− buttons instead of the ▼/▲ buttons.

Use the CHANNEL SCAN function:
See "⑦ CHANNEL SCAN Button" on page 10.

Use the RETURN + function: See "® RETURN + Button" on page 11.

Note:

- When you choose a Programme number (PR) with the CHANNEL GUARD function set, the û (CHANNEL GUARD) mark will appear, and you cannot watch the TV channel. To watch the TV channel, see "CHANNEL GUARD" on page 21.
- If you do not have a clear picture or no colour appears, change the colour system manually. See "D COLOUR SYSTEM Button" on page 12.
- If you cannot hear the sound normally even when the picture appears normally, change the sound system manually. See "18 SOUND SYSTEM Button" on page 12.
- If the picture is tilted, correct it. See "PICTURE TILT" on page 17.
- You can choose a TV channel with the buttons on the TV. For details, see "Operating with the buttons on the TV" on page 31.

Adjust the volume

Press the VOLUME +/- buttons to adjust the volume.

Note:

 You can adjust the volume with the buttons on the TV. For details, see "Operating with the buttons on the TV" on page 31.

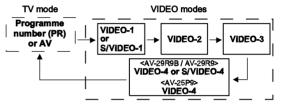
Watch images from external devices

Choose a VIDEO terminal to which the desired external device has been connected.

Use the TV/VIDEO button:

Press the TV/VIDEO button to choose a VIDEO terminal.

Pressing the TV/VIDEO button changes the choice as follows:



Use the CHANNEL +/- buttons:

Press the CHANNEL +/- buttons to choose a VIDEO terminal.

Use the PR LIST:

- 1 Press the DISPLAY button to display the PR LIST.
- 2 Press the **◄/▶** and **▼/▲** buttons to choose a VIDEO terminal. Then press the OK button.

Note:

- The VIDEO terminals are registered after the Programme number PR 99.
- The VIDEO terminal to which an S-VIDEO cable is connected will be displayed as "S/VIDEO" on the screen. For example, the VIDEO-1 terminal will be displayed as "S/VIDEO-1".
- If you do not have a clear picture or no colour appears, change the colour system manually. See "D COLOUR SYSTEM Button" on page 12.
- When choosing a VIDEO terminal with no input signal, the VIDEO terminal number becomes fixed on the screen.

To return to a TV channel:

Press the TV/VIDEO button, the CHANNEL +/- buttons or the Number buttons.

To use the Programme number PR 0 (AV):

When the TV and VCR are connected only by the Aerial cable, choosing the Programme number PR 0 (AV) allows you to view images from the VCR. Set the VCR RF channel to the Programme number PR 0 (AV) manually. For details, see "EDIT/MANUAL" on page 24.

- The VCR RF channel is sent as the RF signal from the VCR.
- Also refer to your VCR instruction manual.

AV COMPU LINK

AV COMPU LINK remote control system is a system in which related devices are automatically controlled when you operate one device.

If you apply this system to the TV, you can have the TV automatically perform the required operations by operating one external device. You don't have to use the TV's remote control to turn on the TV or change the VIDEO modes.

■ Examples of the AV COMPU LINK remote control system operations

- Simply by pressing the PLAY button on a VCR or a DVD player, you can view images from the device.
- Simply by inserting a pre-recorded tape (a tape with the record safety tab removed) to a VCR, you can view the tape.
- Simply by operating the AV Control Receiver, you can have the TV turned on/off (in standby mode) or the VIDEO mode changed correctly.

Note:

- The performance of the AV COMPU LINK remote control system varies depending on the connected device. See the device's instruction manual.
- When you select "TV SOUND" as the input source with the AV Control Receiver, there are cases where the TV's MUTING function automatically operates and the sound from the TV's speakers is muted. In such cases, press the VOLUME +/- buttons or the MUTING button on the TV's remote control to cancel the MUTING function. You can regain the sound from the TV's speakers.

■ Conditions to use the AV COMPU LINK remote control system

- A device equipped with an AV COMPU LINK terminal is required.
- You must connect the TV and the device with an AV COM-PU LINK cable. AV COMPU LINK cable is not supplied with this TV. If an AV COMPU LINK cable is unavailable, connect them with a cable with dia. 3.5 mm (mono) male plugs at both ends.
- You must connect the device to an appropriate VIDEO terminal and set it up correctly. Otherwise the AV COMPU LINK remote control system will not function correctly. For details, see "Setting up the AV COMPU LINK remote control system".
- The TV must be in standby mode (the POWER lamp lighting red). If the TV's Main power is off (the POWER lamp off), the AV COMPU LINK remote control system does not function.

■ Setting up the AV COMPU LINK remote control system

Caution:

 With some devices, the setup method differs from the ones explained here. Be sure to read the device's instruction manual thoroughly before setting it up.

1 Connect the device to the TV's VIDEO-1 or VIDEO-2 terminal.

If you want to connect a DVD player to the TV with a component video cable:

Connect the DVD player to the TV's VIDEO-3 terminal.

Note:

- For detailed connecting instructions, see "CON-NECTING THE EXTERNAL DEVICES" on page 28.
- 2 Connect the TV's AV COMPU LINK terminal and the device's AV COMPU LINK terminal with an AV COMPU LINK cable.
- 3 Change the device's setting according to the VIDEO terminal it is connected to.

If a VCR is connected to the VIDEO-1 terminal: Set the VCR's remote control code to A code.

If a DVD player is connected to the VIDEO-1 terminal:

Set the DVD player's AV COMPULINK MODE to DVD2.

If a VCR is connected to the VIDEO-2 terminal: Set the VCR's remote control code to B code.

If a DVD player is connected to the VIDEO-2 terminal:

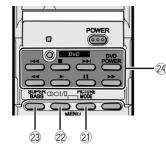
Set the DVD player's AV COMPULINK MODE to DVD3.

If a DVD player is connected to the VIDEO-3 terminal with a component video cable:

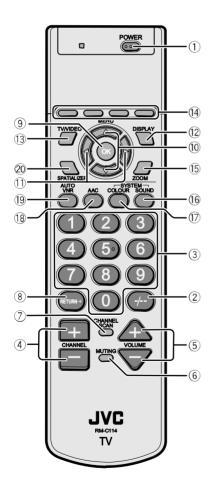
Set the DVD player's AV COMPULINK MODE to DVD1.

- For instructions on how to change the device's setting, refer to the device's instruction manual.
- If the device you are connecting has neither the remote control code nor the AV COMPULINK MODE, then connect it to the TV's VIDEO-1 terminal.

REMOTE CONTROL BUTTONS AND FUNCTIONS







1 POWER Button

Press the POWER button to turn the TV on or off.

When the TV is turned on, the POWER lamp changes from red to green.

2 -/-- Button

Choose the enter mode for Programme number selection.

-: 1-digit mode

You can enter a 1-digit Programme number.

--: 2-digit mode

You can enter a 2-digit Programme number.

3 Number Buttons

You can choose a Programme number (PR) by entering the Programme number.

Note:

 When entering a 2-digit Programme number, press the -/-- button and set the enter mode to "--" (2-digit mode).

4 CHANNEL +/- Buttons

You can choose a Programme number (PR) or a VIDEO terminal.

Press the CHANNEL +/- buttons to choose a Programme number (PR) or a VIDEO terminal.

(5) **VOLUME** +/- Buttons

You can adjust the volume.

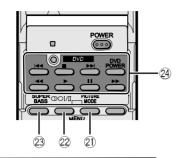
Press the VOLUME +/- buttons to adjust the sound.

6 MUTING Button

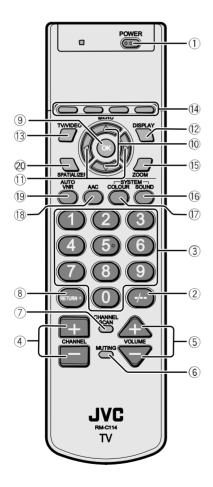
You can turn the volume off instantly.

Press the MUTING button to turn off the Volume. Pressing the MUTING button again resumes the previous Volume level.









7 CHANNEL SCAN Button

You can use the CHANNEL SCAN function to search for the TV channel you want to view.

1 Press the CHANNEL SCAN button to start the CHANNEL SCAN function.

The TV automatically selects all the TV channels registered in the Programme numbers (PR) one by one in programme number order.

2 Press the CHANNEL SCAN button again when the TV channel that you want to view is selected.

The CHANNEL SCAN function ends while that TV channel remains selected.

- Press the CHANNEL SCAN button before the next TV channel is selected.
- A Programme number to which the CHANNEL GUARD function has been set will not be selected.
- If no operations are made after the CHANNEL SCAN function starts, the TV channel returns to the channel you were previously viewing and the CHANNEL SCAN function ends automatically.

® RETURN + Button

The Return + button has two functions; the RETURN + function and the RETURN function. If a channel has been registerd as the "Return Channel", the RETURN + function operates. If there is no setting for the "Return Channel", the RETURN function operates.

RETURN + function:

By registering a channel you frequently view as the "Return Channel", you can select that channel at any time simply by pressing the RETURN + button.

To register a TV channel as the "Return Channel":

Choose the Programme number to which the channel you want to register has been set, and press the RETURN + button and hold for more than 3 seconds continuously. "RETURN PLUS PROGRAMMED!" is displayed and the registration is completed.

To cancel the registration for the "Return Channel":

While viewing any TV channel, press the RETURN + button and hold for more than 3 seconds continuously. "RETURN PLUS CANCELLED!" is displayed and the registration is cancelled.

Note:

- When you turn off the TV, the registration for the "Return Channel" is cancelled.
- If you want to view the "Return Channel" and another TV channel alternately, first choose a channel other than the "Return Channel" and then press the RETURN + button to change the channel to the "Return Channel". In this way, you can view two channels alternately by pressing the RETURN + button.

RETURN function:

The TV temporarily memorises the TV channel that was chosen right before the current TV channel as the "Last Channel". By pressing the RETURN + button, you can alternately view the current TV channel and the "Last Channel".

Note:

 If you want to view two channels alternately by using the RETURN function, first choose one TV channel and then choose the other TV channel with the Number buttons. If you choose the TV channel without using the Number buttons, there are cases where a channel other than the one you first chose is registered as the "Last Channel".

OK Button

The OK button is used to operate menus. For details, see "MENU OPERATION" on page 14.

10 V/▲ Buttons

The ▼/▲ buttons are used to operate menus. For details, see "MENU OPERATION" on page 14.

① **d/**▶ Buttons

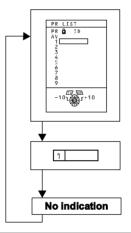
The **◄**/**▶** buttons are used to operate menus. For details, see "MENU OPERATION" on page 14.

12 DISPLAY Button

You can display the PR LIST, Programme number (PR) or VIDEO terminal number on the screen.

Press the DISPLAY button.

Pressing the DISPLAY button changes the display as follows:



Note:

- You can choose Programme numbers (PR) or VIDEO terminals with the PR LIST. For details, see "Use the PR LIST:" on page 7.
- The DISPLAY button is also used to operate menus. For details, see "MENU OPERATION" on page 14.

13 TV/VIDEO Button

You can watch the images from external devices.

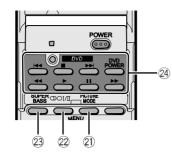
Press the TV/VIDEO button to choose a VIDEO terminal to which the external device has been connected.

Note:

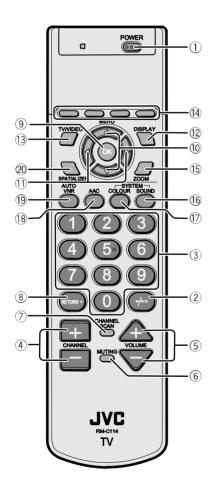
 The TV/VIDEO button is also used to operate menus. For details, see "MENU OPERATION" on page 14.

(14) Colour Buttons

The colour buttons are used to operate menus. For details, see "MENU OPERATION" on page 14.



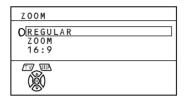




15 ZOOM Button

You can change the screen size according to the picture aspect ratio. Choose the optimum one of three ZOOM modes.

1 Press the ZOOM button to display the ZOOM menu.



2 Press the ▼/▲ buttons to choose a ZOOM mode. Then press the OK button.

The screen size changes and the chosen ZOOM mode is displayed in about 5 seconds.

Note:

 For details on the ZOOM function, see "ZOOM" on page 17.

16 SOUND SYSTEM Button

The sound system is chosen automatically. However, if you cannot hear the sound normally even when the picture appears normally, choose the sound system manually.

Press the SOUND SYSTEM button to choose the appropriate sound system.

$$\rightarrow$$
 B/G \rightarrow I \rightarrow D/K \rightarrow M \neg

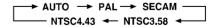
Note:

- This function does not work in the VIDEO mode.
- For the sound systems in each country or region, see the table "BROADCASTING SYSTEMS" on page 33.

(7) COLOUR SYSTEM Button

The colour system is chosen automatically. However, if the picture is not clear or no colour appears, choose the colour system manually.

Press the COLOUR SYSTEM button to choose the appropriate colour system.



- For details on the COLOUR SYSTEM function, see "COLOUR SYSTEM" on page 16.
- For the colour systems in each country or region, see the table "BROADCASTING SYSTEMS" on page 33.
- The AUTO function may not function properly if you have poor signal quality. If the picture is abnormal in the AUTO function, choose another colour system manually.

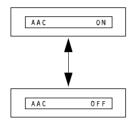
18 AAC Button

You can set the AAC function to ON or OFF.

The AAC function ensures that every part of the picture has the optimum edge compensation.

If you set the AAC function to ON, you can enjoy a clear, natural looking picture.

Press the AAC button to choose ON or OFF.



Note:

 For details on the AAC function, see "AAC (Advanced Aperture Circuit)" on page 16.

(19) AUTO VNR Button

You can set the AUTO VNR function to AUTO, MAX or OFF. If you set the AUTO VNR function to AUTO, the AUTO VNR function optimally reduces the noise of the TV automatically according to the current picture.

Press the AUTO VNR button to choose a mode.

Note

 For details on the AUTO VNR function, see "AUTO VNR" on page 16.

20 SPATIALIZER Button

You can enjoy Surround sound with a "live" effect by using the SPATIALIZER function.

Press the SPATIALIZER button to choose a mode.

$$ightharpoonup$$
 Live $ightharpoonup$ Mono $ightharpoonup$ Off $ightharpoonup$

Note:

- For details on the SPATIALIZER function, see "SPATIAL-IZER" on page 19.
- The SPATIALIZER is manufactured under license from Desper Products, Inc.

② PICTURE MODE Button

You can choose one of three PICTURE MODEs (three kinds of picture settings) to adjust the picture settings automatically.

Press the PICTURE MODE button to choose a mode.

Note:

 For details on the PICTURE MODE function, see "PIC-TURE MODE" on page 15.

22 STEREO / I•II Button

When you are viewing a bilingual broadcast programme, you can choose the sound from Bilingual I (Sub I) or Bilingual II (Sub II). When the stereo broadcasting is received poorly, you can change from stereo to mono sound so that you can hear the broadcast more clearly and easily.

Press the STEREO / I-II (OOI/II) button to choose a sound mode.

: Stereo sound
: Mono sound
I : Bilingual I (sub I)
II : Bilingual II (sub II)

MONO: Cancels the Multi Sound function, and the sound becomes monaural.

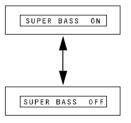
Note:

- The sound mode you can choose differs depending on the TV programme.
- This function does not work in the VIDEO modes.
- You can also operate this function from the SOUND SET-TING menu. For details, see "STEREO / I•II" on page 18.

② SUPER BASS Button (AV-29R9B only)

You can enjoy a powerful bass sound by using the SUPER BASS (Super Bass Reflex) function.

Press the SUPER BASS button to turn the SUPER BASS function on or off.



Note:

 You can also operate this function from the SOUND SET-TING menu. For details, see "SUPER BASS" on page 19.

24 DVD Control Buttons

These buttons can be used to operate a JVC brand DVD player. Pressing the button having the same appearance as the original remote control button of a device makes the function work in the same way as the original remote control.

Press the DVD Control Button to control your DVD player.

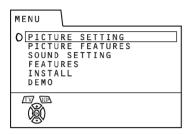
- If your device is not made by JVC, these buttons cannot be used.
- Even if your device is made by JVC, some of these buttons or any one of the buttons may not work, depending on the device.

MENU OPERATION

This TV has a number of functions you can operate using menus. To fully utilize all your TV's functions, you need to understand the basic menu operating techniques fully.

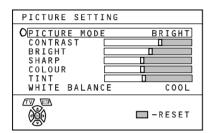
1 Press the OK button to display the MENU (main menu).

The MENU (main menu) appears. In it, the titles of the menus are displayed.



2 Press the **▼**/**△** buttons to choose a menu title, and press the OK button.

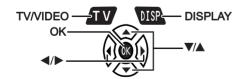
The menu appears.



3 Operate the menus according to the operation description of each function.

Note:

- For details, refer to the operation descriptions of each function described for each menu which follows this "MENU OPERATION".
- The display appearing at the bottom of a menu indicates a button on the remote controller you can use when you operate a chosen function.



4 Press the OK button to complete the setting.

The menu disappears.

To return to the previous menu:

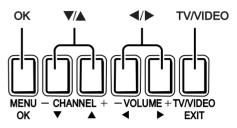
Press the DISPLAY button.

To exit a menu instantly:

Press the TV/VIDEO button.

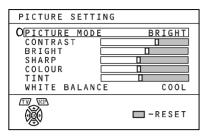
■ Operating with the buttons on the TV

You can also operate the menus using the buttons on the front panel of the TV.



- There is no button on the front panel of the TV that has the function of the DISPLAY button.
- There are no buttons on the front panel of the TV that have the functions of the colour buttons.

PICTURE SETTING



To display the PICTURE SETTING menu:

- 1 Press the OK button to display MENU (main menu).
- 2 Press the ▼/▲ button to choose PICTURE SETTING, and press the OK button.

■ PICTURE MODE

You can choose one of three PICTURE MODEs to adjust the picture settings automatically.

- 1 Press the **▼**/▲ buttons to choose PICTURE MODE.
- 2 Press **◄/▶** buttons to choose a mode.

BRIGHT:

Heightens contrast and sharpness.

STANDARD:

Standardizes picture adjustment.

SOFT:

Softens contrast and sharpness.

3 Press the OK button to complete the setting.

The menu disappears.

■ WHITE BALANCE

You can select one of three WHITE BALANCE modes (three tones of white) to adjust the white balance of the picture. Since white is the colour which is used as a reference for all the other colours, changing the WHITE BALANCE mode affects the appearance of all the other colours on the screen.

- 1 Press the **▼**/**▲** buttons to choose WHITE BALANCE.
- 2 Press **◄/▶** buttons to choose a mode.

COOL:

A bluish white. Using this mode when watching bright pictures allows you to enjoy a more vivid and bright picture.

MID:

The normal white colour.

WARM:

A reddish white. Using this mode when watching films allows you to enjoy colours that are characteristic of films.

3 Press the OK button to complete the setting.

The menu disappears.

■ Picture Adjustment

You can change the picture settings of each PICTURE MODE as you like.

The picture settings changed are stored in the PICTURE MODE.

- 1 Press the ▼/▲ buttons to choose an item.
- 2 Press the **◄/**▶ buttons to change the setting.

The PICTURE SETTING menu changes to the setting menu for the item you chose. When you have finished setting, the menu returns to the PICTURE SETTING menu.

◀	ltem	•
Lower	CONTRAST (picture contrast)	Higher
Darker	BRIGHT (picture brightness)	Brighter
Softer	SHARP (picture sharpness)	Sharper
Lighter	COLOUR (picture colour)	Deeper
Reddish	TINT (picture tint)	Greenish

Note:

 You can change the TINT setting (picture tint) only when the colour system is NTSC 3.58 or NTSC 4.43.

To return to the default settings in each PIC-TURE MODE:

Press the blue button.

Returns the picture settings in the currently chosen PICTURE MODE to the default settings, and stores them in the PICTURE MODE again.

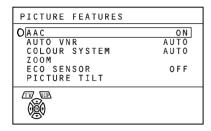
3 Press the OK button to complete the settings.

The menu disappears.

Note:

 You can also directly display the setting menu of the item you want to adjust and change the setting. While no menu is displayed, press the ▼/▲ buttons to display the setting menu of the item you want to adjust, then press the ◀/▶ buttons to change the setting. The setting menu will disappear if no operations are made for several seconds.

PICTURE FEATURES



To display the PICTURE FEATURES menu:

- 1 Press the OK button to display MENU (main menu).
- 2 Press the ▼/▲ button to choose PICTURE FEATURES, and press the OK button.

■ AAC (Advanced Aperture Circuit)

The AAC function ensures that every part of the picture has the optimum edge compensation. By setting the AAC function to ON, you can enjoy a clear, natural looking picture.

- 1 Press the **▼**/**△** buttons to choose AAC.
- 2 Press the **◄/▶** buttons to choose ON.

To cancel the AAC function:

Press the **◄/▶** buttons to choose OFF.

3 Press the OK button to complete the setting.

The menu disappears.

Note:

- For AV-29R9B and AV-29R9, when you change the AAC function setting from OFF to ON, the DANCING LEDs flash for several seconds.
- If you activate the AAC function for a picture with much noise, there are cases where the noise is rather emphasized. In such case, cancel the AAC function.
- The AAC function for TV mode and VIDEO mode can be set separately. For example, you can set it to be OFF in TV mode and ON in VIDEO mode. If you set the AAC function while viewing a TV channel, the setting is registered as the setting for TV mode. If you set the AAC function while viewing images from a VIDEO terminal, the setting is registered as the setting for VIDEO mode.
- You can also operate the AAC function with the AAC button on the remote control. For details, see "® AAC Button" on page 13.

AUTO VNR

If you set the AUTO VNR function to AUTO, the AUTO VNR function optimally reduces noise of the TV automatically according to the noise of the current picture.

- 1 Press the **▼**/**▲** buttons to choose AUTO VNR.
- 2 Press the **◄/▶** buttons to choose AUTO.

МАХ:

This mode always maximizes the noise reduction effect

irrespective of state of the picture. When you set the mode to AUTO but feel that the noise is remarkable, change the mode to MAX. However, this may reduce the sharpness of the picture.

OFF:

The AUTO VNR function is cancelled. When you set the mode to AUTO but feel that the sharpness of the original picture has not been reproduced fully, change the mode to OFF. However, a noise remaining in the original picture may be emphasized.

3 Press the OK button to complete the setting.

The menu disappears.

Note:

- For AV-29R9B and AV-29R9, the AUTO VNR lamp lights while the AUTO VNR function is operating.
- You can also operate the AUTO VNR function with the AUTO VNR button on the remote control. For details, see "⁽¹⁾ AUTO VNR Button" on page 13.

■ COLOUR SYSTEM

The colour system is chosen automatically. However, if the picture is not clear or no colour appears, choose the colour system manually.

- 1 Press the ▼/▲ buttons to choose COLOUR SYSTEM.
- 2 Press the **◄/▶** buttons to choose the appropriate colour system.

PAL:

PAL system

SECAM:

SECAM system

NTSC 3.58:

NTSC 3.58 MHz system

NTSC 4.43

NTSC 4.43 MHz system

AUTO.

This function detects a colour system from the input sig-

3 Press the OK button to complete the setting.

The menu disappears.

- For the colour systems in each country or region, see the table "BROADCASTING SYSTEMS" on page 33.
- The AUTO function may not function properly if you have poor signal quality. If the picture is abnormal in the AUTO function, choose another colour system manually.
- You can also change the colour system with the COLOUR SYSTEM button on the remote control. For details, see "D COLOUR SYSTEM Button" on page 12.

■ ZOOM

You can change the screen size according to the picture aspect ratio. Choose the optimum one of three ZOOM modes.

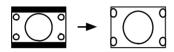
REGULAR:

Use to view a normal picture (4:3 aspect ratio) as its original size is.



ZOOM:

You can zoom up the Wide picture (16:9 aspect ratio) to fill the TV screen.

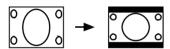


Note:

The left side and right side of the Wide picture (16:9 aspect ratio) will be cut off.

16:9:

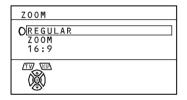
This mode converts a normal picture (4:3 aspect ratio) into a Wide picture (16:9 aspect ratio).



Note:

- Use for pictures with a 16:9 aspect ratio that have been squeezed into a normal picture (4:3 aspect ratio), you can restore their original dimensions.
- 1 Press the ▼/▲ buttons to choose ZOOM. Then press the OK button.

The Sub-menu of the ZOOM function appears.



- 2 Press the ▼/▲ buttons to choose a ZOOM mode.
- 3 Press the OK button to complete the settings.

The menu disappears. The screen size changes and the chosen ZOOM mode is displayed in about 5 seconds.

Note

• For AV-29R9B and AV-29R9, when you change the

- ZOOM mode, the DANCING LEDs flash for several sec-
- You can also operate the ZOOM function with the ZOOM button on the remote control. For details, see "[®] ZOOM Button" on page 12.

■ ECO SENSOR

If you set the ECO SENSOR function to ON or DISPLAY, the screen contrast is automatically adjusted to a setting suitable for the brightness of your room. This reduces eye strain for you and the power consumption of the TV.

- 1 Press the ▼/▲ buttons to choose ECO SENSOR.
- 2 Press the **◄/▶** buttons to choose ON or DISPLAY and activate the ECO SENSOR.

If the ECO SENSOR function is set to DISPLAY:
Heart marks ♥ indicating the brightness of your room are displayed for several seconds each time the brightness changes. The number of heart marks displayed on the screen increases as your room becomes darker.

To cancel the ECO SENSOR function: Press the ◀/▶ buttons to choose OFF.

3 Press the OK button to complete the setting.

The menu disappears.

Note:

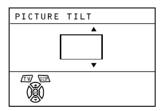
 The ECO lamp lights while the ECO SENSOR function is operating.

■ PICTURE TILT

There are cases where the Earth's magnetic force may make the picture tilt. If this happens, you can correct the picture tilt.

1 Press the **▼**/**▲** buttons to choose PICTURE TILT. Then press the OK button.

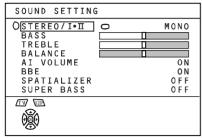
The Sub-menu of the PICTURE TILT function appears.



- 2 Press the ▼/▲ buttons until the picture becomes level.
- 3 Press the OK button to complete the setting.

The menu disappears.

SOUND SETTING



To display the SOUND SETTING menu:

- 1 Press the OK button to display MENU (main menu).
- 2 Press the ▼/▲ button to choose SOUND SETTING. Then press the OK button.

■ STEREO / I•II

When you are viewing a bilingual broadcast programme, you can choose the sound from Bilingual I (Sub I) or Bilingual II (Sub II). When the stereo broadcasting is received poorly, you can change from stereo to mono sound so that you can hear the broadcast more clearly and easily.

- 1 Press ▼/▲ buttons to choose STEREO / I II.
- 2 Press **◄/**▶ buttons to choose a sound mode.

: Stereo sound
: Mono sound
I : Bilingual I (sub I)
II : Bilingual II (sub II)

MONO: Cancels the Multi Sound function, and the sound becomes monaural.

3 Press the OK button to complete the setting.

The menu disappears.

Note:

- The sound mode you can choose differs depending on the TV programme.
- This function does not work in the VIDEO modes. And this function does not appear in the SOUND SETTING menu.
- You can also operate the STEREO/I

 If function with the STEREO/I

 If button on the remote control. For details, see "

 STEREO / I

 If Button on page 13.

■ Sound Adjustment

You can adjust the sound to your liking.

- 1 Press the **▼**/**▲** buttons to choose an item.
- 2 Press the **◄/▶** buttons to adjust it.

Stronger
Stronger
E Right

3 Press the OK button to complete the setting.

The menu disappears.

■ AI VOLUME

You can prevent the sudden increase or decrease of sound that occurs when changing the channel to another channel or switching the VIDEO mode to another VIDEO mode.

- 1 Press the ▼/▲ buttons to choose Al VOL-UME.
- 2 Press the **◄/▶** buttons to choose ON.

To cancel the AI VOLUME function:

Press the ▼/▲ buttons to choose OFF.

3 Press the OK button to complete the setting.

The menu disappears.

Note:

- The AI VOLUME function for TV mode and VIDEO mode can be set separately. For example, you can set it to be OFF in TV mode and ON in VIDEO mode. If you set the AI VOLUME function while viewing a TV channel, the setting is registered as the setting for TV mode. If you set the AI VOLUME function while viewing images from a VIDEO terminal, the setting is registered as the setting for VIDEO mode.
- The AI VOLUME function may not operate as expected if the sound input level from a broadcast station (or video software) is extremely low.

■ BBE

You can use the BBE function to enjoy easy-to-listen sound that is faithful to the original sound recorded.

- 1 Press the **▼**/▲ buttons to choose BBE.
- 2 Press the **◄/▶** buttons to choose ON.

To cancel the BBE function:

Press the ◀/▶ buttons to choose OFF.

3 Press the OK button to complete the setting.

The menu disappears.

- For AV-29R9B and AV-29R9, the BBE lamp lights while the BBE function is operating.
- For AV-29R9B and AV-29R9, when you change the BBE function setting from OFF to ON, the DANCING LEDs flash for several seconds.
- Licensed by BBE Sound, Inc. BBE is a registered trademark of BBE Sound, Inc.

■ SPATIALIZER

You can enjoy Sorround sound with a "live" effect by using the SPATIALIZER function. You can choose one of two SPATIALIZER modes.

1 Press the **▼**/**▲** buttons to choose SPA-TIALIZER.

2 Press the **◄/▶** buttons to choose a mode.

LIVE:

Live allows you to enjoy normal stereo sound converting it into surround sound with added depth and ambience.

Mono allows you to enjoy normal monaural sound by converting it into a stereo-like sound.

To cancel the SPATIALIZER function:

Press the **◄/▶** buttons to choose OFF.

3 Press the OK button to complete the setting.

The menu disappears.

Note:

- The LIVE mode works properly only with stereo sound.
- The MONO mode works properly only with monaural sound.
- The LIVE mode does not work correctly with headphones.
- For AV-29R9B and AV-29R9, when you change the SPA-TIALIZER function setting from OFF to LIVE or MONO, the DANCING LEDs flash for several seconds.
- You can also operate the SPATIALIZER function with the SPATIALIZER button on the remote control. For details, see "20 SPATIALIZER Button" on page 13.
- The SPATIALIZER is manufactured under license from Desper Products, Inc.

■ SUPER BASS (AV-29R9B only)

You can enjoy a powerful bass sound by using the Super Bass (Super Bass Reflex) function.

- 1 Press the **▼**/**▲** buttons to choose SUPER BASS.
- 2 Press the **◄/▶** buttons to choose ON.

To cancel the SUPER BASS function: Press the ◀/▶ buttons to choose OFF.

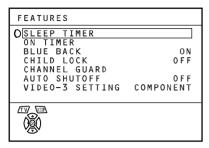
3 Press the OK button to complete the setting.

The menu disappears.

Note:

 You can also operate the SUPER BASS function with the SUPER BASS buttons on the remote control. For details, see "23 SUPER BASS Button" on page 13.

FEATURES



To display the FEATURES menu:

- 1 Press the OK button to display MENU (main menu).
- 2 Press the ▼/▲ button to choose FEA-TURES. Then press the OK button.

■ SLEEP TIMER

You can set the TV to automatically turn off after a specified period of time.

1 Press the ▼/▲ buttons to choose SLEEP TIMER. Then press the OK button.

A Sub-menu of the SLEEP TIMER function appears.



2 Press the **◄/**▶ buttons to set the period of time

You can set the period of time a maximum of 120 minutes (2 hours) in 10 minute increments.

To cancel the SLEEP TIMER function:

Press the ◀ button to set a period of time to "OFF."

3 Press the OK button to complete the settings.

The menu disappears.

Note:

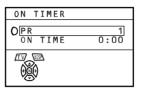
- One minute before the SLEEP TIMER function turns off the TV, "GOOD NIGHT!" appears.
- The SLEEP TIMER function cannot be used to turn off the TV's main power.
- When the SLEEP TIMER function is on, you can display the Sub-menu of the SLEEP TIMER function again to confirm and/or change the remaining period of time of the SLEEP TIMER function. Press the OK button to exit the menu after confirming and/or changing the remaining time.

■ ON TIMER

Your TV will automatically turn on and tune into the channel you want after a certain period of time you have specified.

1 Press the **▼**/**▲** buttons to choose ON TIM-ER. Then press the OK button.

A Sub-menu of the ON TIMER function appears.



2 Press the ▼/▲ buttons to choose PR. Then press the ◀/▶ buttons to choose the Programme number (PR) you want to view when the TV turns on.

Note:

- You cannot choose the Programme number 0 (AV).
- 3 Press the ▼/▲ buttons to choose ON TIME. Then press the ◀/▶ buttons to set the period of time.

You can set the period of time a maximum of 12 hours in 15 minute increments.

To cancel the ON TIMER:

Press the **◄/**▶ buttons to return the period of time to "0:00".

4 Press the OK button to complete the setting.

The menu disappears.

5 Press the Power button on the remote control to turn the TV off.

- The ON TIMER lamp lights while the ON TIMER function is set.
- If you turn off the TV's main power by pressing the Main power button, the ON TIMER setting is cancelled.
- If you do not turn off the TV after starting the ON TIMER, once the time set for the ON TIMER is reached, the Programme number (PR) will automatically switch to the Programme number (PR) set for the ON TIMER.
- For safety reasons, the TV will automatically turn off if no operations are made within approximately two hours after the TV is turned on with the ON TIMER.

■ BLUE BACK

You can set the TV to automatically change to a blue screen and mute the sound if the signal is weak or absent, or when there is no input from an external device.

- 1 Press the ▼/▲ buttons to choose BLUE BACK.
- 2 Press the **◄/▶** buttons to choose ON.

To cancel the BLUE BACK function:

Press the ◀/▶ buttons to choose OFF.

3 Press the OK button to complete the setting.

The menu disappears.

■ CHILD LOCK

You can disable the front control buttons of the TV. When this function is set to ON, the TV can be operated only by using the remote control.

Use this function to prevent children from operating the TV at their own discretion (without parental consent).

- 1 Press the **▼**/**▲** buttons to choose CHILD LOCK.
- 2 Press the **◄/▶** buttons to choose ON.

To cancel the CHILD LOCK function:
Press the ◀/▶ buttons to choose OFF.

3 Press the OK button to complete the setting.

The menu disappears.

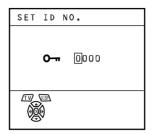
CHANNEL GUARD

When there is a TV channel you wish your children not to watch, you can use the CHANNEL GUARD function to lock out the TV channel. Even when a child chooses a Programme number (PR) in which a locked TV channel has been registered, the screen will change to blue and displays $\hat{\Omega}$ (CHANNEL GUARD) so the TV channel cannot be viewed. Unless you enter a pre-set ID number by a special operation, the lock cannot be released and the child cannot view the TV channel programs.

To set the CHANNEL GUARD function

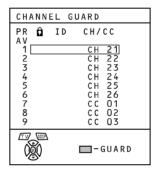
1 Press the ▼/▲ buttons to choose CHANNEL GUARD. Then press the ① button.

"SET ID NO." (ID number setting screen) appears.



- 2 Set the ID number to your liking.
 - 1 Press the ▼/▲ buttons to choose a number.
 - 2 Press the **◄/▶** buttons to move the cursor.
- 3 Press the OK button.

The Sub-menu of CHANNEL GUARD appears.



4 Press the ▼/▲ buttons to choose a TV channel.

Every time you press the \P/A buttons, the Programme number (PR) changes, and the picture of the TV channel registered in the Programme number (PR) is displayed on the screen.

5 Press the blue button and set the CHAN-NEL GUARD function.

 $\widehat{\mathbf{\Omega}}$ (CHANNEL GUARD) appears and the TV channel is locked.

To reset the CHANNEL GUARD function:

Press the blue button again.

(CHANNEL GUARD) disappears.

6 Press the OK button to complete the setting.

The menu disappears.

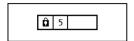
Note:

 To disable easy resetting of the CHANNEL GUARD function, the menu disappears by choosing the CHANNEL GUARD function and pressing the OK button as in the ordinary menu operation.

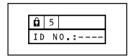
To view a locked TV channel

1 Choose a Programme number (PR) in which a TV channel locked with the Number buttons or PR LIST.

The screen changes to blue and the $\hat{\Omega}$ (CHANNEL GUARD) appears. You cannot view the TV channel.



2 Press the DISPLAY button to display "ID NO." (ID number input screen).



3 Press the Number buttons to enter the ID number.

The lock is temporarily released so you can view the TV channel.

If you have forgotten the ID number:

Perform step 1 of "To set the CHANNEL GUARD function". After confirming the ID number, press the TV/VIDEO button to exit the menu.

Note:

- Even if you reset the lock temporarily, it does not mean that the CHANNEL GUARD function set for the TV channel is cancelled. The next time anyone attempts to view the TV channel, it will be locked again.
- When you would like to cancel the CHANNEL GUARD function, you must perform the operation "To set the CHANNEL GUARD function" again.
- To disable easy choosing of a Programme number (PR) in which a locked TV channel has been registered, the Programme number (PR) has been set that it cannot be chosen by the CHANNEL +/- buttons, CHANNEL SCAN button or the operation buttons at the TV.
- To disable easy resetting of the lock, "ID NO." (ID number input screen) is set so that it cannot appear unless you press the DISPLAY button.

■ AUTO SHUTOFF

You can set your TV to turn off if no signals are received for about 15 minutes or longer after the end of a broadcast.

- 1 Press the **▼**/▲ buttons to choose AUTO SHUTOFF.
- 2 Press the **◄/▶** buttons to choose ON.

To cancel the AUTO SHUTOFF function:
Press the ◀/▶ buttons to choose OFF.

3 Press the OK button to complete the setting.

The menu disappears.

Note:

- The AUTO SHUTOFF function does not turn off the TV's main power.
- The AUTO SHUTOFF will not work for a VIDEO mode.

■ VIDEO-3 SETTING

Set the VIDEO-3 SETTING correctly according to the video signal input from the external device connected to the VIDEO-3 terminal. If this setting is incorrect, images will not be displayed.

- 1 Press the **▼**/▲ buttons to choose VIDEO-3 SETTING.
- 2 Set the VIDEO-3 SETTING according to the video signal input from the VIDEO-3 terminal.

If normal video signal (composite video signal) is input:

Press the **◄/▶** buttons to choose VIDEO.

If Component video signal (Y/CB/CR signals) is input:

Press the **◄/**▶ buttons to choose COMPONENT.

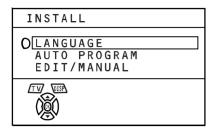
3 Press the OK button to complete the setting.

The menu disappears.

Note:

 For detailed connecting methods, see "CONNECTING THE EXTERNAL DEVICES" on page 28.

INSTALL



To display the INSTALL menu:

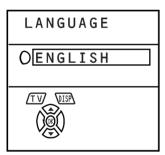
- 1 Press the OK button to display MENU (main menu).
- 2 Press the ▼/▲ button to choose the IN-STALL menu. Then press the OK button.

■ LANGUAGE

You can choose the language you want to use for the onscreen display from the language list in a menu.

1 Press the ▼/▲ buttons to choose LAN-GUAGE. Then press the OK button.

A sub-menu of the LANGUAGE function appears.



- 2 Press the **▼**/**▲** buttons to choose a language.
- 3 Press the OK button to complete the setting.

The menu disappears.

■ AUTO PROGRAM

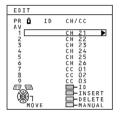
You can automatically register the TV channels which can be received well at your residence in the TV's Programme numbers (PR) by performing the following.

- 1 Press the ▼/▲ buttons to choose AUTO PROGRAM.
- 2 Press the OK button to start the AUTO PROGRAM function.

The AUTO PROGRAM menu appears and received TV channels are automatically registered in the Programme numbers (PR).







To cancel the AUTO PROGRAM function: Press the TV/VIDEO button.

3 After the TV channels have been registered in the Programme numbers (PR), the EDIT menu appears.

You can proceed to edit the Programme numbers (PR) using the EDIT/MANUAL function. For details, see "EDIT/MANUAL" on page 24.

When not using the EDIT/MANUAL function: If you do not need to use the EDIT/MANUAL function, go to the next step.

- If a TV channel you want to view is not set to a Programme number (PR), manually set it using the MANUAL function. For details, see "EDIT/MANUAL" on page 24.
- The TV channel is not registered in Programme number PR 0 (AV). When you want to register a TV channel to PR 0 (AV) manually set it using the MANUAL function. For details, see "EDIT/MANUAL" on page 24.

■ EDIT/MANUAL

The EDIT/MANUAL functions are divided into two types: editing of the current Programme numbers (PR) (EDIT functions) and manual registration of a TV channel you want to view to the Programme number (PR) (MANUAL function). The details about these functions are as follows:

MOVE:

This function changes a Programme number (PR) of a TV channel.

ID:

This function registers a Channel name (ID) to a TV channel.

INSERT:

This function adds a new TV channel in the current Programme numbers (PR) list by using the CH/CC number.

DELETE

This function deletes a unnecessary TV channel.

MANUAL:

This function manually registers a new TV channel in a Programme number (PR).

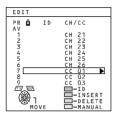
Caution:

- Using the MOVE, DELETE or INSERT function rewrites the current Programme numbers (PR) list. Resultingly, the Programme number (PR) of some of the TV channels will change.
- Using the MANUAL function for a TV channel for which the CHANNEL GUARD function has been set cancels the CHANNEL GUARD function for the TV channel.
- When a TV channel has already been registered in PR 99, using the INSERT function deletes the TV channel.

Note:

- For Programme number PR 0, "AV" appears in the Programme numbers (PR) list.
- A VIDEO terminal number does not appear in the Programme numbers (PR) list.
- The CH/CC number is a number unique to the TV and corresponding to the Channel number of a TV channel. For the relationship of a Channel number and a CH/CC number, see "CH/CC NUMBER" on page 32.
- You cannot use the INSERT function if you do not know a Channel number of a TV channel. Use the MANUAL function to register a TV channel in the Programme number (PR)

1 Press the ▼/▲ buttons to choose EDIT/ MANUAL. Then press the OK button.



- 2 Follow the operation description of a function you want to use and operate the function.
- 3 Press the OK button to complete the settings.

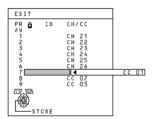
The EDIT menu disappears.

MOVE

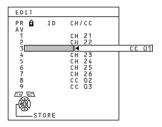
1 Press the **▼**/**▲** buttons to choose a TV channel.

Every time you press the \P/A buttons, the Programme number (PR) is changed over, and the picture of the TV channel registered in the Programme number (PR) appears on the screen.

2 Press the ▶ button to start the MOVE function.



3 Press the ▼/▲ buttons to choose a new Programme number (PR).



To cancel the MOVE function: Press the DISPLAY button.

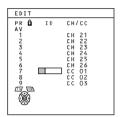
4 Press the ■ button to change the Programme number (PR) of a TV channel to a new Programme number (PR).

ID

1 Press the **▼**/**▲** buttons to choose a TV channel.

Every time you press the \(\nabla/\) buttons, the Programme number (PR) is changed over, and the picture of the TV channel registered in the Programme number (PR) appears on the screen.

2 Press the red button to start the ID function.



3 Enter a Channel name (ID).

Press the ▼/▲ buttons to choose a character.

Press the ◀/▶ buttons to move the cursor.



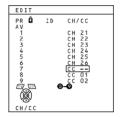
To cancel the ID function: Press the DISPLAY button.

4 Press the OK button to register a Channel name (ID) to a TV channel.

INSERT

Preparation:

- A CH/CC number unique to this TV and corresponding to the Channel number of a TV channel is required. Find the corresponding CH/CC number from a table "CH/CC NUMBER" on page 32. based on the Channel number of the TV channel.
- 1 Press the **▼**/▲ buttons to choose a Programme number (PR) for which you will register a new TV channel.
- 2 Press the green button and start the IN-SERT function.



3 Press the ▼/▲ buttons to choose "CC" or "CH" according to the CH/CC number of the TV channel.

To cancel the INSERT function: Press the DISPLAY button.

4 Press the Number buttons to enter the remaining CH/CC number.

The TV shifts to registration mode.

When the registration is completed, the picture of the TV channel appears on the screen.

Note:

 The CH/CC number is a number indicating the broadcast frequency to the TV. If the TV cannot detect the TV channel corresponding to the broadcast frequency indicated by the CH/CC number, a picture in the no-signal state appears.

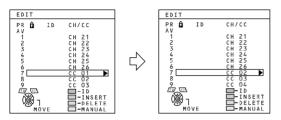
DELETE

1 Press the **▼**/**▲** buttons to choose a TV channel.

Every time you press the \(\nabla/\) buttons, the Programme number (PR) is changed over, and the picture of the TV channel registered in the Programme number (PR) appears on the screen.

2 Press the yellow button to delete the TV channel.

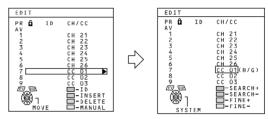
The TV channel is deleted from the Programme numbers (PR) list.



MANUAL

- 1 Press the ▼/▲ buttons to choose a Programme number (PR) to which you want to register a new TV channel.
- 2 Press the blue button to activate the MAN-UAL function.

At the right side following the CH/CC number, the SYS-TEM (sound system) of the TV channel appears.



To cancel the MANUAL function:

Press the DISPLAY button.

3 Press the ▶ button to choose the SYSTEM (sound system) for a TV channel you want to register.

Note:

- For the sound system in each country or region, see the table "BROADCASTING SYSTEMS" on page 33.
- 4 Press the green or red button to search for a TV channel.

Scanning stops when the TV finds a TV channel. Then the TV channel is displayed.

5 Press the green or red button repeatedly until the TV channel you want appears.

If the TV channel reception is poor:

Press the blue or yellow button to fine-tune the TV channel.

If you cannot hear the normal sound even when the picture of the TV channel appears normallv:

The SYSTEM (sound system) setting is wrong. Press the ▶ button and choose a SYSTEM (sound system) that has normal sound.

6 Press the OK button and register the TV channel to a Programme number (PR).

The normal EDIT menu is resumed.

DEMO

DEMO	
O O F F O N	
TV VISA	

To display the DEMO menu:

- 1 Press the OK button to display MENU (main menu).
- 2 Press the ▼/▲ button to choose DEMO. Then press the OK button.

The DEMO function automatically demonstrates some of the TV functions.

- 1 Press the **▼**/**▲** buttons to choose ON.
- 2 Press the OK button to complete the settings.

The DEMO function is set to ON, and the demonstration will start.

To stop the demonstration:

Press one of the buttons on the remote control.

When the DEMO function is set to ON:

Each time the TV is turned on, the demonstration starts automatically. If you do not want that to happen, perform the following operations to cancel the DEMO function:

- 1 Display the DEMO menu again.
- 2 Press the **▼**/**△** buttons to choose OFF.
- 3 Press the OK button to cancel the DEMO function.

Note:

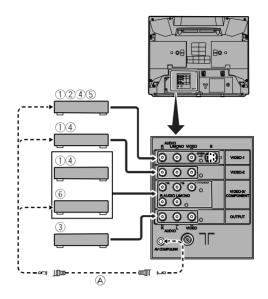
• For AV-29R9B and AV-29R9, the DANCING LEDs flash while the DEMO function is operating.

CONNECTING THE EXTERNAL DEVICES

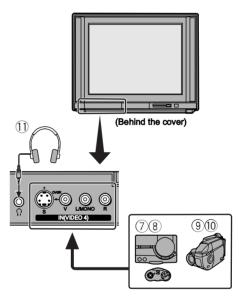
Connect the devices to the TV, paying attention to the connection diagrams.

Before connecting anything:

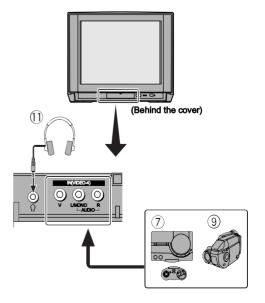
- Read the manuals provided with the devices. Depending on the devices, the connection method may differ from the connection diagrams. In addition, the device settings may be changed depending on the connection method to secure proper operation.
- Turn off all the devices including the TV.
- The "SPECIFICATIONS" on the back cover contains the details of the VIDEO terminals. If you are connecting a device not listed in the following connection diagrams, see the "SPECIFICATIONS" to choose the best VIDEO terminal.
- Note that connecting cables are not supplied.
- To use the AV COMPU LINK remote control system, read "AV COMPU LINK" on page 8 thoroughly before you start connecting, and connect the device correctly according to "Setting up the AV COMPU LINK remote control system". If the device is not connected correctly, the AV COMPU LINK remote control system will not function correctly.
- ①VCR (composite signal)
- 2 VCR (S-VIDEO signal; Y/C)
- ③VCR for recording (composite signal)
- 4 DVD Player (composite signal)
- **⑤ DVD Player (S-VIDEO signal; Y/C)**
- 6 DVD Player (component video signals; Y/CB/CR)
- TV game (composite signal)
- ® TV game (S-VIDEO signal; Y/C)
- 10 Camcorder (S-VIDEO signal; Y/C)
- 11 Headphones
- **AV COMPU LINK cable**



<AV-29R9B / AV-29R9>



<AV-25P9>



■ Connecting methods

1 Connect the TV's VIDEO jack and the device's VIDEO OUT (video output) jack with a video cable.

If connecting a device to the TV with an S-VID-EO cable:

Connect the VCR's S-VIDEO OUT (S-VIDEO output) connector and the TV's S connector with an S-VIDEO cable, instead of connecting with a video cable.

Note that the connection with a video cable will be ignored in case you connect a VCR to the TV with both video cable and S-VIDEO cable.

If connecting a DVD player to the TV with a component video cable:

Connect three jacks (Y/VIDEO, CB and CR) in the VIDEO-3 terminal and the DVD player's COMPONENT (composite video output) jacks with a component video cable, instead of connection with a video cable. Then set the VIDEO-3 SETTING to COMPONENT, according to "VIDEO-3 SETTING" on page 22.

If connecting a device to the VIDEO-3/COMPO-NENT terminal with a video cable:

Connect the TV's Y/VIDEO jack and the device's VIDEO OUT (video output) jack with a video cable. Then set the VIDEO-3 SETTING to VIDEO according to "VIDEO-3 SETTING" on page 22.

Note:

- In the VIDEO-4 terminal, the VIDEO jack is indicated by "V".
- 2 Connect the TV's AUDIO jacks (L/MONO and R) and the device's AUDIO OUT (audio L/R output) jacks with an audio cable.

If the device's sound output is in mono:

Connect the device's AUDIO OUT jack and the TV's L/ MONO jack with an audio cable.

Note:

 In the VIDEO-4 terminal, the AUDIO jacks are indicated by "L/MONO" and "R".

If the device has an AV COMPU LINK terminal:

If you connect the TV's AV COMPU LINK terminal and the device's AV COMPU LINK terminal with an AV COMPU LINK cable, you can use the AV COMPU LINK remote control system. For details, see "AV COMPU LINK" on page 8.

■ Connecting devices to the OUTPUT terminal

The signals of the image and sound you are currently viewing with this TV are output through the OUTPUT terminal. By connecting a VCR to the OUTPUT terminal, you can record the currently shown image and sound to that VCR. To do this, connect the VCR and OUTPUT terminal following the steps below.

- 1 Connect the VIDEO jack in the OUTPUT terminal and the VCR's VIDEO IN (video input) jack with a video cable.
- 2 Connect the AUDIO jacks (L and R) in the OUTPUT terminal and the VCR's AUDIO IN (audio L/R input) jacks with an audio cable.

Note:

- When you turn off the TV, the signals from the OUTPUT terminal are also turned off.
- The component signals input from the VIDEO-3/COMPO-NENT terminal cannot be output through the OUTPUT terminal.

■ Connecting Headphones

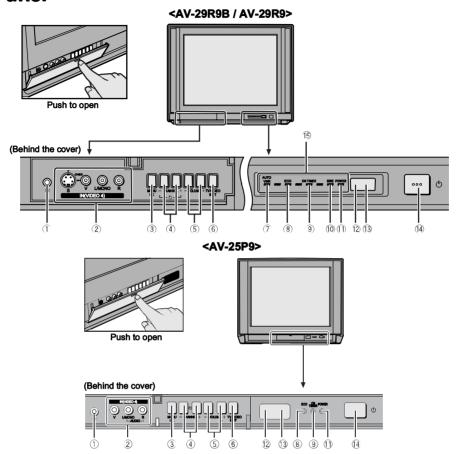
Connect the headphones with a stereo mini jack (of 3.5 mm in diameter) to the Headphone jack at the TV front panel.

Note:

 When you connect the headphones, the TV speakers issue no sound.

TV BUTTONS AND PARTS

■ Front Panel



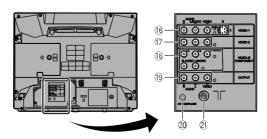
① Headphone jack (mini jack)	page 28
② VIDEO-4 terminal	page 28
③ OK button	page 14
④ CHANNEL +/- buttons / MENU ▼/▲ buttons	pages 14 and 31
⑤ VOLUME +/- buttons / MENU ◀/▶ buttons	pages 14 and 31
⑥TV/VIDEO button	pages 14 and 31

⑦AUTO VNR lamp	page 16
® ECO lamp	page 17
ON TIMER lamp	page 20
® BBE lamp	page 18
① POWER lamp	pages 4 and 6
® ECO sensor	
Remote control sensor	
Main power button	pages 4 and 6
15 DANCING LEDs	

Caution:

• Do not grasp the TV by the front panel cover when moving the TV set. If you do, you may break the cover.

■ Rear Panel



® VIDEO-1 terminal	pages 2 and 28
⑦ VIDEO-2 terminal	page 28
® VIDEO-3/COMPONENT terminal	pages 22 and 28

OUTPUT terminal	page 28
@AV COMPU LINK terminal	page 8
② Aerial socket	page 2

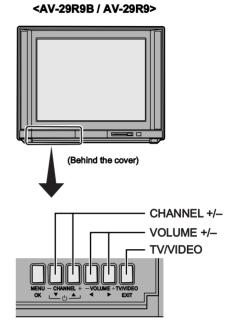
■ Operating with the buttons on the TV

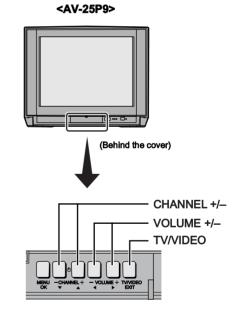
- **1** Press the CHANNEL +/- buttons to turn the TV on from standby mode.
- **2** Press the CHANNEL +/- buttons to choose a Programme number (PR).

To choose a VIDEO terminal:

Press the TV/VIDEO button or the CHANNEL +/- button to choose a VIDEO terminal.

3 Press the VOLUME +/- buttons to adjust the volume.





CH/CC NUMBER

When you want to use the INSERT function on page 25, find the CH/CC number corresponding to the Channel number of the TV channel from this table.

- A: US channel numbers. The US channel numbers are the channel numbers used in the United States, Philippines, etc.
 B: CCIR channel numbers. The CCIR channel numbers are the channel numbers used in the Middle East, Southeast Asia, etc.
 C: OIRT channel numbers. The OIRT channel numbers are the channel numbers used in Eastern Europe, Russia, Vietnam, etc.

- D: CHINA channel numbers. The CHINA channel numbers are the channel numbers used in China, etc.

 E: AUSTRALIA channel numbers. The AUSTRALIA channel numbers are the channel numbers used in Australia, etc.

	Channel					-	Channel						Channel				
СН	Α	В	С	D	E	CH	Α	В	С	D	E	СН	Α	В	С	D	Е
CH 02	US-2	E2	R1	DS-1	AU-0	CH 26	US-26	E26		DS-18		CH 50	US-50	E50		DS-37	
CH 03	US-3	E3		DS-2	AU-1	CH 27	US-27	E27		DS-19		CH 51	US-51	E51		DS-38	
CH 04	US-4	E4	R2	DS-3	AU-2	CH 28	US-28	E28		DS-20		CH 52	US-52	E52		DS-39	
CH 05	US-5	E5	R6	DS-7	AU-6	CH 29	US-29	E29		DS-21		CH 53	US-53	E53		DS-40	
CH 06	US-6	E6	R7	DS-8	AU-7	CH 30	US-30	E30		DS-22		CH 54	US-54	E54		DS-41	
CH 07	US-7	E7	R8	DS-9	AU-8	CH 31	US-31	E31		DS-23		CH 55	US-55	E55		DS-42	
CH 08	US-8	E8	R9		AU-9	CH 32	US-32	E32		DS-24		CH 56	US-56	E56		DS-43	
CH 09	US-9	E9		DS-10		CH 33	US-33	E33				CH 57	US-57	E57		DS-44	
CH 10	US-10	E10	R10	DS-11	AU-10	CH 34	US-34	E34				CH 58	US-58	E58		DS-45	
CH 11	US-11	E11	R11	DS-12	AU-11	CH 35	US-35	E35				CH 59	US-59	E59		DS-46	
CH 12	US-12	E12	R12	Z-8		CH 36	US-36	E36				CH 60	US-60	E60		DS-47	
CH 13	US-13					CH 37	US-37	E37				CH 61	US-61	E61		DS-48	
CH 14	US-14					CH 38	US-38	E38		DS-25		CH 62	US-62	E62		DS-49	
CH 15	US-15					CH 39	US-39	E39		DS-26		CH 63	US-63	E63		DS-50	
CH 16	US-16					CH 40	US-40	E40		DS-27		CH 64	US-64	E64		DS-51	
CH 17	US-17					CH 41	US-41	E41		DS-28		CH 65	US-65	E65		DS-52	
CH 18	US-18					CH 42	US-42	E42		DS-29		CH 66	US-66	E66		DS-53	
CH 19	US-19					CH 43	US-43	E43		DS-30		CH 67	US-67	E67		DS-54	
CH 20	US-20					CH 44	US-44	E44		DS-31		CH 68	US-68	E68		DS-55	
CH 21	US-21	E21		DS-13		CH 45	US-45	E45		DS-32		CH 69	US-69	E69		DS-56	
CH 22	US-22	E22		DS-14		CH 46	US-46	E46		DS-33		CH 70				DS-57	
CH 23	US-23	E23		DS-15		CH 47	US-47	E47		DS-34							
CH 24	US-24	E24		DS-16		CH 48	US-48	E48		DS-35							
CH 25	US-25	E25		DS-17		CH 49	US-49	E49		DS-36							

СС			Channel			СС			Channel						Channel		
CC	Α	В	С	D	E		Α	В	С	D	E	CC	Α	В	С	D	E
CC 01		S-1			AU-5	CC 26	М	S-26		Z-23		CC 51	W+15				
CC 02		S-2		Z-1		CC 27	N	S-27		Z-24		CC 52	W+16				
CC 03		S-3		Z-2		CC 28	0	S-28		Z-25		CC 53	W+17				
CC 04		S-4		Z-3		CC 29	Р	S-29		Z-26		CC 54	W+18				
CC 05		S-5		Z-4		CC 30	Q	S-30		Z-27		CC 55	W+19				
CC 06		S-6			AU-5A	CC 31	R	S-31		Z-28		CC 56	W+20				
CC 07		S-7		Z-5		CC 32	S	S-32		Z-29		CC 57	W+21				
CC 08		S-8		Z-6		CC 33	Т	S-33		Z-30		CC 58	W+22				
CC 09		S-9		Z-7		CC 34	U	S-34		Z-31		CC 59	W+23				
CC 10		S-10		DS-6		CC 35	٧	S-35		Z-32		CC 60	W+24				
CC 11		S-11		Z-9		CC 36	w	S-36		Z-33		CC 61	W+25				
CC 12		S-12		Z-10		CC 37	W+1	S-37		Z-34		CC 62	W+26				
CC 13		S-13		Z-11		CC 38	W+2	S-38		Z-35		CC 63	W+27				
CC 14	Α	S-14				CC 39	W+3	S-39		Z-36		CC 64	W+28				
CC 15	В	S-15		Z-12		CC 40	W+4	S-40		Z-37		CC 75		Х			
CC 16	С	S-16		Z-13		CC 41	W+5	S-41				CC 76		Υ	R3	DS-4	
CC 17	D	S-17		Z-14		CC 42	W+6					CC 77		Z	R4	DS-5	AU-3
CC 18	E	S-18		Z-15		CC 43	W+7					CC 78		Z+1	R5		
CC 19	F	S-19		Z-16		CC 44	W+8					CC 79		Z+2			AU-4
CC 20	G	S-20		Z-17		CC 45	W+9					CC 95	A-5				
CC 21	Н	S-21		Z-18		CC 46	W+10					CC 96	A-4				
CC 22	I	S-22		Z-19		CC 47	W+11					CC 97	A-3				
CC 23	J	S-23		Z-20		CC 48	W+12					CC 98	A-2				
CC 24	к	S-24		Z-21		CC 49	W+13					CC 99	A-1				
CC 25	L	S-25		Z-22		CC 50	W+14										-

BROADCASTING SYSTEMS

For the sound system and colur system in your country or region, refer to the table below.

A	Country or Bosion	Sys	System				
Area	Country or Region	Colour	Sound				
Acia	Bahrain, Kuwait, Oman, Qatar, United Arab Emirates, Yemen, etc. Indonesia, Malaysia, Singapore, Thailand, India, etc.	PAL	B/G				
Asia, Middle	China, Vietnam, etc.	PAL	D/K				
East	Hong Kong, etc.	PAL	I				
	Islamic Republic of Iran, Lebanon, Saudi Arabia, etc.	SECAM	B/G				
	Philippines, Taiwan, Myanmar, etc.	NTSC	М				
	Russia, etc.	SECAM	D/K				
Furana	Czech Republic, Poland, etc.	PAL	D/K				
Europe	Germany, Holland, Belgium, etc.	PAL	B/G				
	UK, etc.	PAL	I				
Oceania	Australia, New Zealand, etc.	PAL	B/G				
	Republic of South Africa, etc.	PAL	I				
Africa	Nigeria, etc.	PAL	B/G				
	Egypt, Morocco, etc.	SECAM	B/G				

TROUBLESHOOTING

If a problem arises while you are using the TV, please read this "Troubleshooting" well before you request having the TV repaired. You may be able to fix it easily by yourself. For example, if the AC plug is disconnected from the AC outlet, or the TV aerial has problems, you may think there is a problem with the TV itself.

Important:

- This Troubleshooting guide only covers problems whose cause are not easy to determine. If a question arise when you are operating a function, read the page(s) corresponding to the operation of the function well, not this Troubleshooting guide.
- After you have followed the Troubleshooting description or the operating description of the functions concerned without any success, remove the AC plug from the AC outlet and request a repair of your TV. Do not attempt to repair the TV by yourself or remove the rear cover of the TV.

If you cannot turn on the TV

- Is the AC plug connected to the AC outlet?
- Is the POWER lamp lit? If not, press the Main power button.

No picture/No sound

- Have you chosen a TV channel whose reception is extremely bad? In this case, the BLUE BACK function will be activated, the entire screen becomes blue, and the sound is muted. In spite of this, if you want to view the TV channel, follow the description "BLUE BACK" on page 21 to try to change the BLUE BACK function setting to OFF.
- Have you connected the headphones to the TV? Connecting the headphones to the TV causes sounds not to be issued from the TV speakers.
- Are your SOUND SYSTEM settings for the TV channels correct? Follow the description "® SOUND SYSTEM Button" on page 12 to try to solve the trouble.

Poor picture

• If noise totally obscures the picture (snow), the aerial or aerial cable may have trouble. Check the following to try to solve the trouble:

Has the TV and aerial been connected properly? Has the aerial cable been damaged? Is the aerial pointed to the right direction? Is the aerial itself faulty?

- If the TV or aerial receives interference from the other devices, stripes or noise may appear in the picture. Move such devices as an amplifier, personal computer, or a hair drier that can cause interference away from your TV, or try changing its location. If the aerial suffers interference from a radio tower or high-voltage wire, please contact your local dealer.
- If the TV receives interference from signal reflecting from mountains or building, double-pictures (ghosting) will occur. Try to change the aerial's direction or replace the antenna with the one with better directionality.
- Are your COLOUR SYSTEM settings for the TV channels correct? Follow the description "#D COLOUR SYSTEM Button" on page 12 to try to solve the trouble.

- Has COLOUR or BRIGHT been controlled properly? Follow the description "Picture Adjustment" on page 15 to try to adjust them properly.
- When a white and bright still image (such as a white dress) is displayed on the screen, the white part may look as if it were coloured. It is a phenomenon unavoidable due to the nature of the picture tube itself, and not due to a TV failure. When the picture disappears from the screen, the unnatural colours will also disappear.

Poor sound

- Have you adjusted BASS or TREBLE properly? If not, follow the description "Sound Adjustment" on page 18 to try to adjust them properly.
- When the TV channel reception is poor, it can be hard to hear the stereo or bilingual sound. In this case, follow the description "STEREO / I•II" on page 18 to hear the sound more easily by changing it to a mono sound.

Operation disabled

- Have the batteries of the remote control become exhausted? Follow the description "Putting Batteries into the Remote Control" on page 3 and replace them with new batteries to try to solve the problem.
- Have you attempted to use the remote control at the sides or rear of the TV or at a location more than seven meters apart from the TV location? Operate the remote control in the front of your TV or a location less than seven meters from your TV to try to solve the problem.
- Is the CHILD LOCK function set to ON? If the CHILD LOCK function is set to ON, you cannot operate the TV with the front control buttons of the TV. Follow the description "CHILD LOCK" on page 21 to try to set the CHILD LOCK function to OFF.
- If the TV operation becomes disabled suddenly, press the Main power button on the TV and turn off the main power.
 Try to press the Main power button again to turn on the main power. If the TV returns to a normal state, it is not a failure.

Other concerns

- The POWER lamp may still light for approximately 10 seconds after you turn the TV's main power off with the Main power button.
- If the TV turns off suddenly, the SLEEP TIMER function or AUTO SHUTOFF function may have operated. Also, when no operations are made within approximately two hours after the TV was turned on with the ON TIMER, the TV automatically turns off for safety reasons. If the TV functions normally afterwards, there is no problem.
- If the TV turns on suddenly, the ON TIMER function or the AV COMPU LINK remote control system may have operated. If the TV functions normally afterwards, there is no problem.
- If the TV channel suddenly changes to a different TV channel or VIDEO mode, the ON TIMER function or the AV COMPU LINK remote control system may have operated. If the TV functions normally afterwards, there is no problem.
- If you bring a magnetised device such as a speaker near to your TV, a picture may be warped or unnatural colors appear at he corners of the screen. In this case, keep the device apart from your TV. If the speaker causes such phenomena, use a magnetic-shielded speaker instead.
- A picture may be tilted due to the influence of the earth's magnetism. In this case, use the "PICTURE TILT" on page 17 to complete the tilt.
- The TV may emit a crackling sound due to a sudden change in temperature. It does not matter if a picture or sound does not show any abnormality. If you hear crackling sounds frequently while you are viewing the TV, other causes may be assumed. For precautionary purposes, request your service technician to inspect it.
- Touching the screen may cause you feel a slight electric shock due to its static electricity. It is an unavoidable phenomenon due to the construction of the picture tube. It is not a problem with the TV. You can rest assured that this static discharge does not have harmful influence over the human body.

SPECIFICATIONS

Model	AV-29R9B	AV-29R9	AV-25P9				
Broadcasting systems	B, G, I, D, K, K1, M						
Colour systems	PAL, SECAM, NTSC 3.58 / 4.43 MHz						
Channels and frequencies	VHF high channel (VH) = UHF channel (U) =	46.25 to 168.25 MHz 175.25 to 463.25 MHz 471.25 to 863.25 MHz nid band (X to Z, S1 to S10), sup	er band (S11 to S20) and hyper				
Sound-multiplex systems	A2, NICAM(B/G, I, D/K) syster	n					
Power requirements	AC 110 to 240 V, 50 / 60 Hz (d	operating AC 90 to 260 V, 50 / 60) Hz)				
Power consumption	163 W	137 W	119 W				
Screen size (measured diagonally)	Picture tube 73 cm Visible area 68 cm		Picture tube 65cm Visible area 60cm				
Audio output	Rated Power output: 15 W + 15 W + 5 W	Rated Power output: 10 W + 10 W					
Speakers	10 cm round × 2, 10 cm round × 2 3.5 cm round × 2 (4cm × 12cm) oval × 1						
VIDEO-1 terminal	RCA connector × 3, S-VIDEO (• Video input, S-VIDEO (Y/C) in	connector× 1 put and Audio L/R inputs are avai	lable.				
VIDEO-2 terminal	RCA connector × 3 • Video input and Audio L/R inp	uts are available.					
VIDEO-3 COMPONENT terminal	RCA connector × 5 • Video input, Component video	(Y/CB/CR) input and Audio L/R in	puts are available.				
VIDEO-4 terminal	RCA connector × 3, S-VIDEO (• Video input, S-VIDEO (Y/C) available.	connector× 1 input and Audio L/R inputs are	RCA connector × 3 • Video input and Audio L/R inputs are available.				
OUTPUT terminal	RCA connector × 3 • Video output and Audio L/R output	utputs are available.					
Headphone jack	Stereo mini-jack (3.5 mm in dia	ameter)					
Dimensions ($W \times H \times D$)	732 mm × 588 mm × 508 mm		655 mm × 530.5 mm × 465 mm				
Weight	52 kg		36 kg				
Accessories	Remote control unit RM-C114 × 1 AA/R6 dry cell battery× 2 Matching aerial adapter× 1	Remote control unit RM-C115 AA/R6 dry cell battery × 2 Matching aerial adapter × 1	× 1				

Design and specifications subject to change without notice.

Pictures displayed on the screen using this TV's ZOOM functions should not be shown for any commercial or demonstration purpose in public places (cafes, hotels, etc.) without the consent of the owners of copyright of the original picture sources, as this constitutes an infringement of copyright.



